THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte KOUJI KITOU,
IKUYA ARAI and YUJI SANO

_____

Appeal No. 96-2661
Application 08/177,975[1]

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HEARD: June 10, 1999

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Before URYNOWICZ, FLEMING and RUGGIERO, ***Administrative Patent Judges***.

[1] Application for patent filed January 6, 1994.

FLEMING, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 17 through 20. Claims 1 through 6 and 21 have been allowed. We note that an amendment after final action was submitted on December 1, 1995, amending claim 17 and cancelling claim 20. The record shows that this amendment has been entered by the Examiner; thereby, amended claim 17 is properly before us.

The invention relates to a horizontal deflection circuit used in a multi-scan display apparatus, such as a display apparatus for computers. The present invention is capable of dealing with various horizontal deflection frequencies.

Independent claim 17 is reproduced as follows:

17. A cathode ray-tube [sic, cathode-ray tube] display apparatus comprising a cathode-ray tube and S-shape correction circuit means including an S-shape capacitor connected in series with a horizontal deflector coil for correcting linearity error of the cathode-ray tube, the S-shape

correction circuit means providing a maximum of linearity error of a substantially constant value of less than 5% over a predetermined range of horizontal deflection frequencies of 30kHz to 60kHz.

The Examiner relies on the following reference:

Teuling	4,871,951	Oct. 3, 1989

Claims 17 through 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Teuling and Appellants' admitted prior art.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the briefs[2] and the answer for the details thereof.

OPINION

At the outset, we note that Appellants state on page 10 of the brief that the claims do not stand or fall together. We note that Appellants argue all of the claims as a single

[2] Appellants filed an appeal brief on March 4, 1996. Appellants filed a reply brief on May 9, 1996. The Examiner stated in the Examiner's letter mailed May 22, 1996 that the reply brief has been entered and considered but no further response by the Examiner is deemed necessary.

group in the briefs. 37 CFR § 1.192(c)(7) (July 1, 1995) ***as amended at*** 60 Fed. Reg. 14518 (March 17, 1995), which was controlling at the time of Appellants' filing the brief, states:

> For each ground of rejection which appellant contests and which applies to a group of two or more claims, the Board shall select a single claim from the group and shall decide the appeal as to the ground of rejection on the basis of that claim alone unless a statement is included that the claims of the group do not stand or fall together and, in the argument under paragraph (c)(8) of this section, appellant explains why the claims of the group are believed to be separately patentable. Merely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable.

Appellants have argued claims 17 through 19 as a single group. We will, thereby, consider the Appellants' claims as standing or falling together and we will treat claim 17 as a representative claim of that group.

On page 10 of the brief, Appellants argue that claim 17 is written in means-plus-function format as sanctioned by the sixth paragraph of 35 U.S.C. § 112, and in accordance with the decision of ***In re Donaldson***, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994). Appellants argue that the claimed language must be interpreted in light of the specification. Appellants point to Figure 12 and argue that the S-shape correction circuit means provides a curve 97 as shown in Figure 12 as having a maximum of linearity error of a substantially constant value over a range of horizontal deflection frequencies of 30 kHz to 60 kHz and that the maximum linearity error of a substantially constant value is less than 5% over the predetermined range of horizontal deflection frequencies of 30 kHz to 60 kHz.

Our reviewing court has stated in ***Donaldson***, 16 F.3d at 1193, 29 USPQ2d at 1848, that the "plain and unambiguous meaning of paragraph six is that one construing means-plus-function language in a claim must look to the specification and interpret that language in light of the corresponding

structure, material, or acts described therein, and equivalents thereof, to the extent that the specification provides such disclosure." We note that the Appellants have not argued that the claim language recited in claim 17 must be interpreted as corresponding structure that is disclosed in the specification. Appellants argue that we must interpret the claim in view of a graph Figure 12 which shows the performance or function of the circuit, but does not show or disclose corresponding structure.

Our reviewing court as stated in ***Donaldson***, 16 F.3d at 1193, 29 USPQ2d at 1848, held that means-plus-function language must be interpreted in light of corresponding structure. However, we do not agree that our reviewing court held that means-plus-function language must be interpreted to provide further functions of the means such as shown in Appellants' Figure 12. Furthermore, our reviewing court states in ***In re Zletz***, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) that "claims must be interpreted as broadly as their terms reasonably allow."

On page 11 of the brief, Appellants argue that Teuling fails to teach a correction circuit means having a maximum of

linearity error of a substantially constant value over a range of deflection frequencies of 30 kHz to 60 kHz. We note Appellants' claim 17 recites an "S-shape correction circuit means providing a maximum of linearity error of a substantially constant value of less than 5% over a predetermined range of horizontal deflection frequencies of 30 kHz to 60 kHz."

On pages 3 and 4 of the Examiner's answer, the Examiner states that Teuling teaches a picture display device including an S-shape correction circuit wherein a control circuit 17 and 18 adjusts a supply voltage controlling the amplitude of the deflection current in accordance with a detected horizontal deflection frequency, and a control circuit 16 generates a correction current in response to the detected frequency wherein the deflection current and the correction current flow through the S-capacitor 12 in opposite directions. The first control circuit is adjusted such that the amplitude of the deflection current is constant, while the

second control circuit is adjusted to effect the required S-shaping over the complete range of frequencies to be expected to enable continuous S-shape correction irrespective of changes in frequency. For support, the Examiner points to column 8, lines 50 and 51, and lines 64 through 66).

The Examiner acknowledges that Teuling is silent as to the frequency range. However, the Examiner points to the admitted prior art on page 21 of the Appellants' specification which teach that it is conventional for a display device to operate in this range of frequencies. The Examiner argues that it would have been obvious to one having ordinary skill in the art to modify Teuling by using the conventional range in which the minimum frequency is 30 kHz and the maximum frequency is 60 kHz. The Examiner argues that the reason for using this frequency range would have been the conventionality of such a range as admitted by Appellants' specification. The Examiner furthermore argues that since the S-distortion in the linearity is corrected and since the current flowing through the S-capacitor is proportional to some power of the horizontal frequency, the

horizontal linearity error is deemed to be substantially zero, which meets the claim language limitations. Upon a careful review of Teuling, we find that Teuling does in fact teach an S-shape correction circuit means which provides a maximum of linearity of substantially constant value of less than 5% over a predetermined range of horizontal

deflection frequencies of 30 kHz to 60 kHz as recited in Appellants' claim 17. We further note that Teuling teaches in column 8, lines 47 through 54, that the linearity error and the S-distortion for all the frequencies between f_{min} and f_{max} can substantially be eliminated. Furthermore, we agree that Appellants have admitted on pages 21 and 22 of the specification that the highest horizontal deflection frequency is conven- tionally 60 kHz and the lowest horizontal deflection frequency is conventionally 30 kHz. We further find that it would have been obvious to those skilled in the art to recognize that Teuling, when speaking of the f_{min} and the f_{max}, was referring to the conventional 30 kHz and 60 kHz as admitted by Appellants in the Appellants' specification.

Therefore, we find that the Examiner has established a ***prima facie*** case of obviousness of Appellants' claims 17 through 19.

Appellants have provided secondary evidence in which we have to consider to reach a finding of obviousness. "[S]uch secondary considerations of nonobviousness as commercial success, long felt but unsolved needs, failures of others, and copying are considered in determining obviousness." ***Para-Ordnance Mfg. v. SGS Importers Int'l***, 73 F.3d 1085, 1087-88, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), ***cert. denied***, 519 U.S. 822 (1996) ***citing Graham v. John Deere Co.***, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966); ***Avia Group Int'l, Inc. v. L.A. Gear Cal., Inc.***, 853 F.2d 1557, 1564, 7 USPQ2d 1548, 1553 (Fed. Cir. 1988). "It is jurisprudentially inappropriate to disregard any relevant evidence . . . . Thus evidence rising out of the so-called 'secondary considerations' must always when present be considered en route to a determination of obviousness." ***Stratoflex, Inc. v. Aeroquip Corp.***, 713 F.2d 1530, 1538, 218

USPQ 871, 879 (Fed. Cir. 1983) ***citing In re Sernaker***, 702 F.2d 989, 996, 217 USPQ 1, 7 (Fed. Cir. 1983).

Turning to the declaration by Kitou, one of the Appellants, we note on page 2 that the Declarant states that the linearity error is determined by V_{CS}/E_B and the corresponding values in Teuling as attained by the circuit of Figure 1 would have the following curves when F_{min} is considered to be 30 kHz and F_{max} is considered to 60 kHz. The Declarant has provided us with two graphs. Then the Declarant concludes that Teuling does not and cannot provide a linearity error of a substantially constant value over a frequency range of 30 kHz to 60 kHz, as recited in claim 17.

We note that the Declarant has not explained how these graphs have been obtained nor how the values for V_{CS} and E_B are determined. We have little to go on other than accepting the actual graphs provided.

We note that the initial burden of establishing a ***prima facie*** case rests upon the Examiner. ***In re Piasecki***, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The ***prima facie*** case is a procedural tool used in patent

examination for establishing not only that the evidence of the prior art would reasonably allow the conclusion that the Examiner seeks, but also that the prior art compels such a conclusion if the Applicants produce no evidence or argument to rebut it. ***In re Spada***, 911 F.2d 705, 707, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). Thus, the Examiner has the initial burden of producing a factual basis for the rejection under § 103. Then, the burden shifts to the Appellants to establish by rebuttal a showing of facts sup- porting the opposite conclusion. Upon reviewing the declaration, we fail to find that Appellants have met this burden. As shown above, we fail to find any facts to support the conclusions of Appellants and, in particular, any supporting evidence to show that the circuits as disclosed by Teuling would have performed in the manner as alleged by the Declarant.

In view of the foregoing, the decision of the Examiner rejecting claims 17 through 19 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in con- nection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

STANLEY M. URYNOWICZ, JR. Administrative Patent Judge	)	
MICHAEL R. FLEMING Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JOSEPH RUGGIERO Administrative Patent Judge	)	

MRF:psb

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